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EXAMINER

NGUYEN, TOAN D

ART UNIT PAPER NUMBER

2665

DATE MAILED: 06/28/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/616,956

Applicant(s)

JHA, PANKAJ K.

Examiner

Toan D Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-6 and 8-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-6,9-12,14-16 and 18-22 is/are rejected.
- 7) ☒ Claim(s) 8,13 and 17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 29 January 2004 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 8,9.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3-6, 9, 14-16, 18 and 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Connor (US 6,356,544) in view of Vogel (US 6,075,788).

For claim 1, O'Connor discloses SONET add/drop multiplexer with packet over SONET capability comprising:

an interface (figure 2, reference 101) connectable to a network (col. 3 lines 61-63); and
a node (figure 2, reference 101) configured (i) as an add/drop device for said network (col. 3 line 63), and (iii) to drop at least one of said packet from said frame (figure 2, col. 1 lines 7-10).

However, O'Connor does not disclose (ii) to transport a plurality of packets having a plurality of protocols within a frame on said network through said interface. In an analogous art, Vogel discloses transport a plurality of packets having a plurality of protocols (PPP protocol and ATM cell protocol) within a frame on said network through said interface (col. 6 lines 26-36). Vogel discloses further wherein said packet further comprise a header configured to identify a data type of said one or more packets (col. 6 lines 29-30 as set forth in claim 7);

One skilled in the art would have recognized a plurality of packets having a plurality of protocols within a frame on said network through said interface to use the teachings of Vogel in

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the system of O'Connor. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use the plurality of packets having a plurality of protocols within a frame on said network through said interface as taught by Vogel in O'Connor's system with the motivation being to provide a single-chip device that enables data to be transmitted over a SONET communications link in a variety of standard and non-standard transmission modes (col. 3 line 67 to col. 4 line 3).

For claim 3, O'Connor discloses wherein said node comprises SONET/SDH add/drop multiplexers (ADMs) (figure 2, col. 3 line 63).

For claim 4, O'Connor discloses wherein said frame is further configured to optimize a bandwidth of said apparatus (col. 2 lines 27-29).

For claim 5, O'Connor discloses wherein said network comprises a fiber optic network (figure 2, col. 3 line 61).

For claim 6, O'Connor discloses wherein said network comprises a SONET/SDH fiber optic network (figure 2, col. 3 line 61).

For claim 9, O'Connor discloses wherein said packets are selected from a group consisting of (i) Internet Protocol packets, (ii) Packet-Over-SONET/SDH (POS), (iii) Point-to-Point Protocol packets, (iv) Asynchronous Transfer Mode cells, (v) G.702-based Plesiochronous Digital Hierarchy packets, and Frame Relay packets (figure 2, col. 1 lines 4-5 and col. 4 lines 42-45).

For claim 14, O'Connor discloses wherein said node is selected from the group of (i) terminal multiplexers and (ii) SONET/SDH ADMs and (iii) data-aware SONET/SDH ADMs and

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(iv) digital cross-connects (DCCs) (figure 2, references 101, 104, 106, 107 and 108, col. 3 lines 62-63).

For claim 15, O'Connor discloses SONET add/drop multiplexer with packet over SONET capability comprising:

a plurality of nodes (figure 2, references 101, 104, 106, 107 and 108) configured to interface to a network (col. 3 lines 61-64).

However, O'Connor does not disclose wherein each of said nodes is configured to generate a frame on said network comprising a plurality of packets having a plurality of different protocol received through a plurality of interfaces. In an analogous art, Vogel discloses wherein each of said nodes is configured to generate a frame on said network comprising a plurality of packets having a plurality of different protocol (PPP protocol and ATM cell protocol) received through a plurality of interfaces (col. 6 lines 26-36).

One skilled in the art would have recognized each of said nodes is configured to generate a frame on said network comprising a plurality of packets having a plurality of different protocol received through a plurality of interfaces to use the teachings of Vogel in the system of O'Connor. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use the each of said nodes is configured to generate a frame on said network comprising a plurality of packets having a plurality of different protocol received through a plurality of interfaces as taught by Vogel in O'Connor's system with the motivation being to provide a single-chip device that enables data to be transmitted over a SONET communications link in a variety of standard and non-standard transmission modes (col. 3 line 67 to col. 4 line 3).

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For claim 16, O'Connor discloses SONET add/drop multiplexer with packet over SONET capability comprising the steps of:

- (A) adding at least one new packet (Abstract lines 1-8 and col. 1 lines 4-10); and
- (B) dropping at least one of said packets (Abstract lines 1-8 and col. 1 lines 4-10).

However, O'Connor does not disclose having one of said protocols to said packets in said frame. In an analogous art, However, O'Connor does not disclose (ii) to transport a plurality of packets having a plurality of protocols within a frame on said network through said interface. In an analogous art, Vogel discloses having one of said protocols (PPP protocol and ATM cell protocol) to said packets in said frame (col. 6 lines 26-36).

One skilled in the art would have recognized one of said protocols to said packets in said frame to use the teachings of Vogel in the system of O'Connor. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use the one of said protocols to said packets in said frame as taught by Vogel in O'Connor's system with the motivation being to provide a single-chip device that enables data to be transmitted over a SONET communications link in a variety of standard and non-standard transmission modes (col. 3 line 67 to col. 4 line 3).

For claim 18, O'Connor discloses wherein said packets are selected from a group consisting of (i) Internet Protocol packets, (ii) Packet-Over-SONET/SDH (POS), (iii) Point-to-Point Protocol packets, (iv) Asynchronous Transfer Mode cells, (v) G.702-based Plesiochronous Digital Hierarchy packets, and Frame Relay packets (figure 2, col. 1 lines 4-5 and col. 4 lines 42-45).

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For claim 21, O'Connor discloses wherein said nodes are further configured as add/drop multiplexers for said network (figure 2, references 101, 104, 106, 107 and 108, col. 3 line 63).

For claim 22, O'Connor discloses wherein said network comprises one of a Synchronous Optical Network frame and a Synchronous Digital Hierarchy fiber optic network (figure 2, col. 3 line 61).

3. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over O'Connor (US 6,356,544) in view of Vogel (US 6,075,788) further in view of Lahat et al. (US 6,233,074).

For claim 10, Vogel in view of O'Connor disclose wherein said network is selected from a group consisting of a point-to-point networks (col. 1 line 48). However, Vogel in view of O'Connor does not disclose non-SONET/SDH configurations such as point-to-point WDM networks. In an analogous art, Lahat et al. disclose non-SONET/SDH configurations such as point-to-point WDM networks (col. 5 line 58).

One skilled in the art would have recognized non-SONET/SDH configurations such as point-to-point WDM networks to use the teachings of Lahat et al. in the system of O'Connor. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use the non-SONET/SDH configurations such as point-to-point WDM networks as taught by Lahat et al. in O'Connor's system with the motivation being to include the savings in terms of both material costs and installation labor expenses and very high bandwidths can be achieved on the ring network by using a plurality of wavelengths (col. 11 lines 38-44).

4. Claims 11-12 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Connor (US 6,356,544 B1) in view of Vogel (US 6,075,788) further in view Larsen (US 4,237,553).

For claims 11-12 and 19-20, O'Connor in view of Vogel does not disclose wherein said node is further configured to determine said reusability of each of said packets within said frame received at said interface. In an analogous art, Larsen discloses wherein said node is further configured to determine said reusability of each of said packets within said frame received at said interface (col. 5 lines 54-58). Larsen discloses further wherein said node is further configured to determine said reusability of each of said packets in response to a reuse bit (col. 5 lines 54-58 as set forth in claim 12); determining a reusability of each of said packets (col. 5 lines 54-58 as set forth in claim 19); wherein said determining is further in response to a reuse bit in a header in each of said packets (col. 2 lines 55-60 and col. 5 lines 54-58 as set forth in claim 20).

One skilled in the art would have recognized a reusability of each of said packets within said frame received at said interface to use the teachings of Larsen in the system of O'Connor. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use the reusability of each of said packets within said frame received at said interface as taught by Larsen in O'Connor's system with the motivation being to provide that each packet header may thus be monitored at frame speed (col. 3 lines 6-8).

Allowable Subject Matter

5. Claims 8, 13 and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Response to Arguments

6. Applicant's arguments with respect to claims 1, 3-6 and 8-22 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Applicant's amendment on January 29, 2004 necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Contact Information

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toan D Nguyen whose telephone number is 703-305-0140. The examiner can normally be reached on Monday- Friday (7:00AM-4:30PM).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Huy Vu can be reached on 703-308-6602. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-9600.

TN

TN

A handwritten signature in black ink, appearing to read 'Huy Vu', with a long horizontal line extending to the right.

HUY D. VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600